



Trigger Database Global Parameters

Peter Wilson 1
Trigger HDW
Meeting
Oct 25, 2001

- Most parameters in Trigger DB are directly associated with a specific trigger:
 - eg Et of tower and pt of the track for CEM8_PT8
- There are a few that apply to the whole trigger table
 - Granularity of tower energies
 - Version numbers of firmware
- Some of these are already handled in a sensible fashion in the database but not all
- Discussions on what to do in the future have been going on in the Trigger DB Working Group
- Extend the discussion here to a wider audience of hardware experts



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- One type is already handled in a table called “Trigger Files”. This is to be used for code versions.
 - Names of Alpha executables for the four different processors
 - CVS code version for Alpha (not currently implemented)
 - Firmware versions for Muon Trigger Cards (not currently there?)
 - Match cards
 - PreMatch Cards
 - Summary card
 - Firmware versions for XTRP (not currently there)
 - Other firmware versions?



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- There are some “constants” that are needed to create a table that are sometimes also loaded into registers
- These currently are specified for each trigger and check for consistency. This is cumbersome.
- Some are also specified in the Hardware database by card number. We need these to come from one location.
- Some probably do not exist in any database right now
- Moving these will have implications on code such as TRIGSIM. Need to understand the ramifications.



List of Global Parameters

- DIRAC tower granularity
 - Currently specified for Plug and central in each calorimeter trigger. Also specified for each DIRAC card in the Hardware DB.
 - Only makes sense as a single value for the whole calorimeter
 - Unlikely to change more than once in 5 years
 - Most code actually has this hardwired!
- DIRAC HAD/EM granularity (aka HADEMsel)
 - Currently specified for Plug and central in each calorimeter trigger. Also specified for each DIRAC card in the Hardware DB.
 - Only makes sense as a two values: one for plug and one for central
 - Unlikely to change more than once in 5 years
 - Most code actually has this hardwired!



List of Global Parameters

- Set of XFT Pt bins
 - Currently the Trigger DB knows nothing about these. Relies on code to interpret thresholds into bins
 - Is this in the Hardware DB?
- Do we need the SVT roads?
- Association of Muon Delta t cut with pt Threshold
- Whether CSX is using Meantimers or Single Counters
- Calibration constant for RECES thresholds (does this go here or Calibration DB?)
- DCAS Seed and Tower thresholds?
 - This one is in a grey area and we have gone back and forth about where it belongs